BUOYS

GENERAL

These navigation charts were generated from field surveys conducted by the U.S. Army Corps of Engineers offices and from aerial photography taken circa 2006. Information presented on these charts can change and, therefore, anyone navigating on the Missouri River must exercise caution and acknowledge the ever-present hazards of this natural resource. Mariners are urged to submit any condition found to differ from those shown on the charts to http://www.nwk.usace.army.mil/RiverCharts, or call 816-389-3699.

PROCUREMENT OF NAVIGATION CHARTS

Navigation charts for the Federal navigation projects on the Western Rivers of the United States are available for purchase from the US Army Corps of Engineers. Navigation charts for the Missouri River can be procured from the following sources:

732 North Capitol Street NW Washington, DC 20401-0001 202-512-1800

A list of locations for the purchase of navigation charts for other Corps' projects can be obtained from the following internet address:

http://bookstore.gpo.gov

Electronic navigation charts can be obtained from:

http://www.agc.army.mil/echarts/inlandnav

NAVIGATION NOTICES

Notices to Navigation Interests (Navigation Notice), containing data on channel conditions, lock closures, location of dredges, etc., are issued by the Corps of Engineers as occasions warrant. Distribution of the Navigation Notices for the Missouri River is by e-mail. Requests to be placed on the distribution list for the Missouri River need to contact:

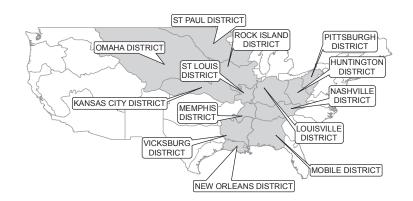
U.S Army Corps of Engineers, Northwestern Division Kansas City District 601 East 12th St. Kansas City, Missouri 64106

MILE POINTS

River mileage, as shown along the navigation project's sailing line, is measured from the mouth of the Missouri River and continues upstream to Rulo, Nebraska, river mile 498.4. The miles points do not represent actual distance along the sailing line. Generally, the mile points approximate a mile between the points; however, in areas where the alignment of the navigation channel has changed during its existence, the distance between mile points would tend to be greater or less than 1-mile in distance.

The Corps of Engineers has the responsibility under Congressional authorization for the construction, operation and maintenance of the Missouri River for navigation, flood control and related purposes, including flow regulation and bank protection. The navigation project extends from Sioux City, Iowa to the mouth, a distance of 735 miles. The completed project provides a continuous navigation channel 9' deep and 300' wide, which is designed to flow along the concave side of the bends and through the crossing between bends. The commercial navigation season is normally from latter March to latter November at Sioux City, and from the first of April to the first of December at the mouth. Ice conditions and low water preclude navigation the rest of the year. Specific minimum flow rates are required during the navigation season to provide adequate depths and width. To meet this, insufficient natural flows are augmented by releases from upstream reservoirs. A flow of 30,000 to 35,000 cubic feet per second is generally maintained at Sioux City and Omaha, and 35,000 to 40,000 cubic feet per second at Kansas City. During the navigation season, river stages vary from a range of about one foot at Sioux City to around 15 feet at Hermann, Mo., and the velocity of the flow varies from 4 to 5 miles per hour.

CORPS OF ENGINEERS JURISDICTIONS



Buoys that are used to mark channels on the Missouri River system conform to the standard lateral system of buoyage on the Western Rivers of the United States. All buoys are equipped with reflectors; buoys on the left descending side of the channel reflect red; buoys on the right descending side of the channel reflect green. Due to practical limitations of positioning and maintaining floating buoys in precise geographical locations, buoy position shown on these navigation charts are approximate positions only, if shown. Prevailing river conditions alter the actual locations of the buoys. They may be carried off position by currents, high stages, accumulation of drift, ice, sunk by collision or other causes. When carried off position, destroyed or removed to prevent loss, buoys are re-established at the earliest opportunity by the U.S. Coast Guard.

GAUGES

River gauges provide current river stage conditions. See gauge table for data specific to individual gauges.

WATER SURFACE ELEVATIONS

All water surface elevations referenced on these charts are referenced to mean seal level 1929 National Geodetic Vertical Datum (NGVD) unless otherwise noted in the gauge table. The project depths refer to data collected during summer 2007.

VERTICAL CLEARANCES

Vertical clearances under bridges are shown on the respective charts as well as in the vertical clearance table. The source for the clearances is the U.S Coast Guard Light List Volume 5 for the Mississippi River System (http://www.navcen.uscg.gov/).

PERMITS

In the administration of laws, enacted by Congress for the protection and preservation of navigation and the navigable waters of the United States, the U.S. Army Corps of Engineers exercises jurisdiction over the Missouri River and several of its tributary streams and wetlands. Anyone wishing to undertake a project in, under, over or adjacent to water (including wetlands) of the United States need to inquire at the appropriate Corps of Engineers District regarding permit requirements. Inquiries for such work or structures should be addressed to:

Kansas City District Regulatory Office 601 East 12th Street Kansas City, MO 64106-2896 Telephone: 816-389-3990 Fax: 816-389-2032